The third section of Table 6 shows the rates for these three conditions by Health Service Area (see Appendix 2, a map of the HSA regions). These geographic areas rather than counties were used because of the uncertainty of reporting consistency from one county to another. Where only a few certifiers fill out most of the death certificates in a county, variations in recording practices by one or two individuals may have a large effect on the reported rates, particularly where conditions in addition to the major cause of death are concerned. For example, for the 1975-78 mentions data in the 1978 Leading Causes of Mortality, rates from one county to another for arteriosclerosis, hypertension, and diabetes varied by a magnitude of at least seven. It is unlikely that the true level of disease varies this much, and an unknown portion of this must be attributed to differences in the medical completeness of death certificate recording. Aggregations at the HSA level are used here to minimize this problem. Smaller geographic levels could be examined by combining years of data and grouping those counties with few deaths.

Table 6 reveals that HSA I (western) has the highest number of mentions of arteriosclerosis per 100,000 population, though an age-adjusted rate would be somewhat lower since the population in that area has a high average age. This HSA is below the state average for hypertension and diabetes and an age-adjusted rate would show an even lower risk of these two diseases for decedents of that region. Another exception to the general pattern of declining rates is that for HSAs II and III there was no change or a slight increase from 1969 to 1978 in the number of mentions of diabetes per 100,000 population. This could be due to an increase in the nonwhite female population in these regions (with a high race-sex-specific rate) and/or to an increase in the race-sex-specific rates for diabetes in these regions.

The biggest deviations among HSAs are the very high rates for hypertension and for diabetes in HSA VI. Though these have decreased from 1969 to 1978, they are still well above the state average. Since HSA VI has a large nonwhite population, and the prevalence of hypertension and diabetes is higher among nonwhites, we would expect these rates to be somewhat higher. But data not shown in Table 6 reveal that in 1978 the hypertension mentions per 100,000 for whites in HSA VI were 67 compared to 60 for all